WE1S "dfr_browser" module

Included in the WE1S Workspace (see <u>S-2</u>), the "dfr_browser" module contains Jupyter notebooks for creating and customizing Dfr-browser (one model interface in the WE1S <u>Topic Model Observatory</u>). WE1S adapted the tool from the original created by Andew Goldstone (Rutgers U., New Brunswick), ²

Dfr-browser stands out among topic model visualizations as a general-purpose interface allowing the user to move fluidly between overviews of a model, close study of topics, reading documents associated with topics (or, in WE1S's own models, of term frequencies because plain texts are under copyright), and tracking specific words from one topic to another.

Principal visualizations in Dfr-browser include:

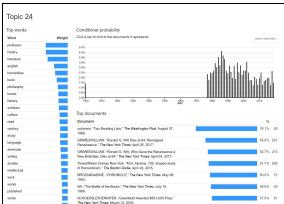
- Overview (in several variants)
- Topic view (showing top words and documents)
- Word view (showing topics in which a word is important)
- Document view (showing the topics that a document is most associated with).

Goldstone published excellent instructions on using a version of Dfr-browser for a topic model he produced for the *Signs* journal. Sections of his instructions include:

"Reading the Interview" and "Exploring in

Depth." He also includes instructions on his Dfr-browser GitHub site. WE1S's <u>chapter</u> on the tool in its <u>Topic Model Observatory</u> <u>Guide</u> adds goal-directed instructions.





Dfr-browser (overview and specific topic views) of a topic model of newspaper articles. (Click for larger screenshots.)

Further information:

- * Andrew Goldstone's original Dfr-browser: GitHub
- * Goldstone's user instructions
- * WE1S Topic Model Observatory Guide: <u>Dfr-browser</u>

Live example for a WE1S topic model: <u>C-1.50</u> (50 topics)

Main Jupyter notebooks in this module:

- * create dfrbrowser.ipynb
- * customize+dfrbrowser.ipynb

Code source: [TBD] (MIT License)

¹ A user must have previously created a topic model for a project in the WE1S Workspace using the "topic_modeling" module (see <u>S-13</u>). For a general explanation of topic models, see <u>M-2</u>.

² WE1S's version of Dfr-browser is slightly adapted to work with the metadata accompanying texts imported to its Workspace as opposed to the metadata of the JSTOR articles for which Goldstone designed his tool.